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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,464

07/14/2006

Euicheol Nho

VT7-036US

4222

959 7590 08/06/2008
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EXAMINER

LAXTON, GARY L

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

08/06/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,464	NHO ET AL.	
	Examiner	Art Unit	
	Gary L. Laxton	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/14/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claims 1-13 are objected to because of the following informalities:

Claim 1 recites the limitation "said two switching devices" in line 20. There is insufficient antecedent basis for this limitation in the claim. Lines 12 and 18 both recited "two switching devices". Which two switching devices is the applicant referring to in line 20? The applicant should label each pair of switching devices differently in order to distinguish them. Claims 2-13 inherit the same from claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kettler (US 3,621,374) in view of Blair et al. (US 6,100,673).

Claims 1-4 and 11; The recitation, “a voltage variation generator for generating load voltage of voltage sag, voltage swell and instant outage for performance test of custom power devices”, has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Therefore, Kettler discloses a voltage variation generator comprising: a supply voltage unit for applying AC supply voltage (V_s), a positive output terminal (A, B, V_R) of the supply voltage unit being connected in series to a load (10); a variable voltage adjuster (e.g. 12) connected to the positive output terminal of the supply voltage unit, for obtaining first voltage from the supply voltage according to a first transformation ratio; a variable voltage-side switch (e.g. S5) including two switching devices connected in reverse-parallel to each other (see figure 2, e.g. S_n), for selectively contacting in series with a primary side coil (e.g. B, C, D) of the variable voltage adjuster and adjusting a contact point position with the variable voltage adjuster (A, B, C, D); a transformer-side switch (S2) including two switching devices connected in series to the variable voltage-side switch (S5), the two [transformer-side] switching devices being connected in parallel to each other in a reverse direction (see fig. 2, e.g. S_n); and a transformer (16) including a primary side (18) and a secondary side (16), for obtaining second voltage from

the first voltage according to a second transformation ratio; the primary side of the transformer being connected in parallel to the transformer-side switch (S2).

However, Kettler does not expressly disclose the secondary side being connected in series to a negative output terminal of the supply voltage unit and the load respectively.

Blair et al. disclose a voltage control device for increasing or decreasing voltage to a load comprising an apparatus to selectively boost or buck an input voltage in order to provide a selected output voltage. Wherein the boost or bucking apparatus is connected to the negative side terminal of the load verses the positive terminal in order to output voltages to the load at selected levels despite variations in the input voltage from the supply source.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kettler to connect the secondary side of the transformer in series to a negative output terminal of the supply voltage unit and the load respectively in order to output voltages to the load at selected levels despite variations in the input voltage from the supply source as taught by Blair et al.

Claim 5, Kettler col. 3 lines 10-15.

Claims 6-9; Kettler col. 3 lines 16-44. Moreover, is $V_s(1 - I_n \cdot nT)$ has not been given patentable weight because the variables are undefined.

Claim 10; e.g. Kettler contact point D.

Claim 12; e.g. Kettler contact point C.

Claim 13; It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 1647 (1987).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a load from at least one of a Dynamic Uninterruptible Power Supply (UPS), a Dynamic Voltage Restorer (DVR), a Distribution Static Compensators (DSTATCOM), a Static Var Compensators (SVC), and a Solid State Transfer Switches (SSTS) in order to provide power to such a load as is well known in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (571) 272-2079. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on (571) 272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/2/2008

/Gary L. Laxton/
Primary Examiner
Art Unit 2838